

PROJECT DESCRIPTION

This project involves the installation of an intersection control beacon at MD 97 (Georgia Avenue) and Emory Church Road/Emory Lane in Montgomery County, Maryland. MD 97 is assumed to run in a north-south direction.

INTERSECTION OPERATION

The intersection will operate in a flashing mode, with flashing amber signals for both MD 97 (Georgia Avenue) approaches and flashing red signals for the Emory Church Road approach and the Frontage Road approach.

SPECIAL NOTES

All underground and overhead utilities shown on these plans are schematic only and may not be complete. The Contractor shall be responsible for notifying Miss Utility prior to construction so that all utilities may be located in the field. If the Contractor perceives that a conflict between the utilities and the traffic signal will occur, the Contractor shall notify the Project Engineer immediately so that the conflict may be resolved.

The contact persons for District #3 (Montgomery County) are as follows:

Mr. Jeffrey Wentz  
Assistant District Engineer - Traffic  
Phone: (301) 513-7358

Mr. Wayne Mowdy  
Assistant District Engineer - Maintenance  
Phone: (301) 513-7304

Mr. Augie Rebish  
District Engineer - Utility  
Phone: (301) 513-7350

Mr. Richard L. Daff, Sr.  
Chief, Traffic Operations Division  
Phone: (410) 787-7630

Dr. Kamal Hamud  
Engineer, Montgomery County DPWT  
Phone: (240) 777-8761

Mr. Ed Rodenhizer  
SHA Signal Shop  
Phone: (410) 787-7650

The Power Company Representative is:  
Mr. Steve Custer  
PEPCO  
Phone: (301) 548-4333

EQUIPMENT LIST

A. EQUIPMENT TO BE FURNISHED BY THE STATE HIGHWAY ADMINISTRATION.

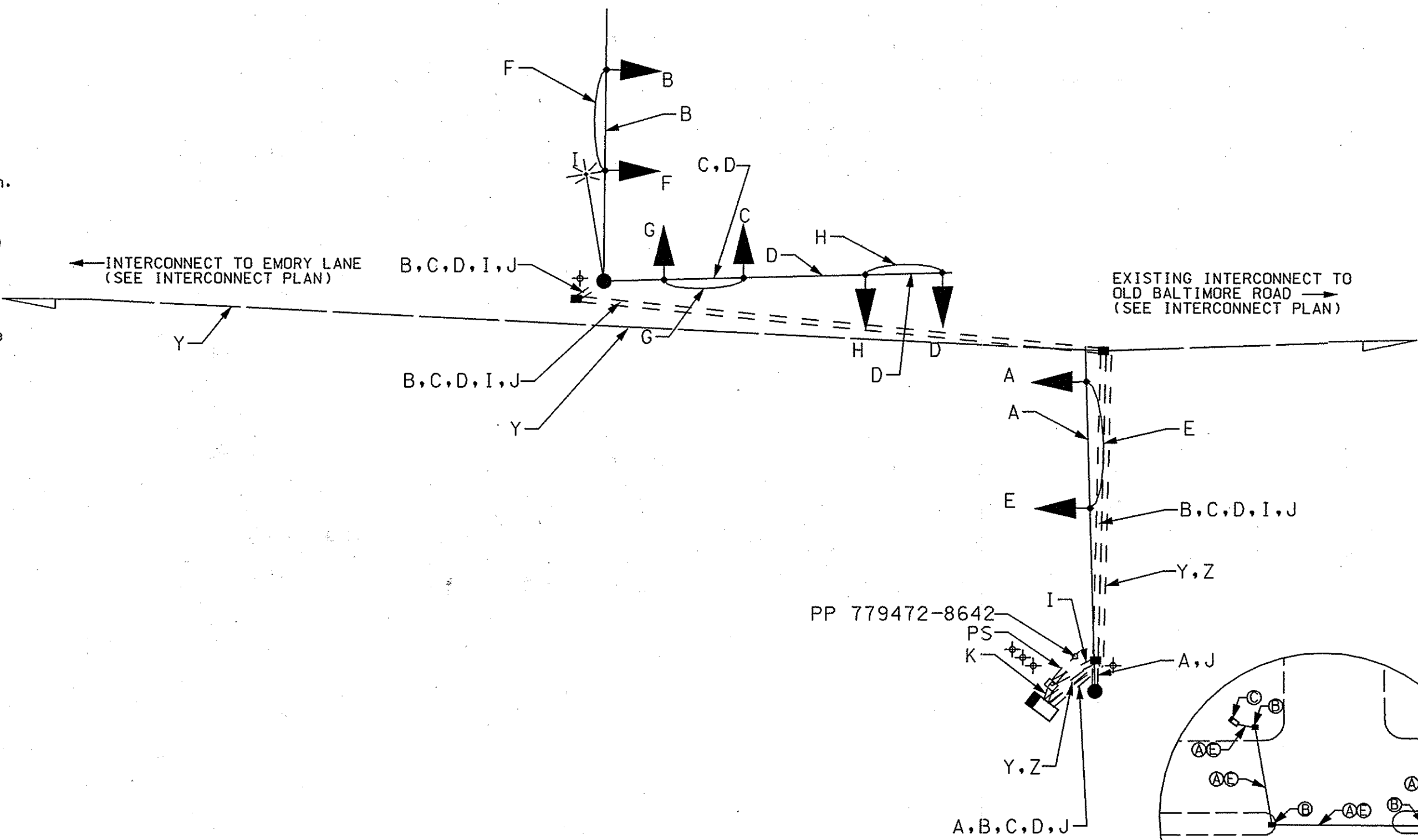
NONE

B. EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR.

ALL EQUIPMENT IN THIS LIST SHALL HAVE CATALOG CUTS SUBMITTED TO SHA FOR APPROVAL PRIOR TO INSTALLATION.

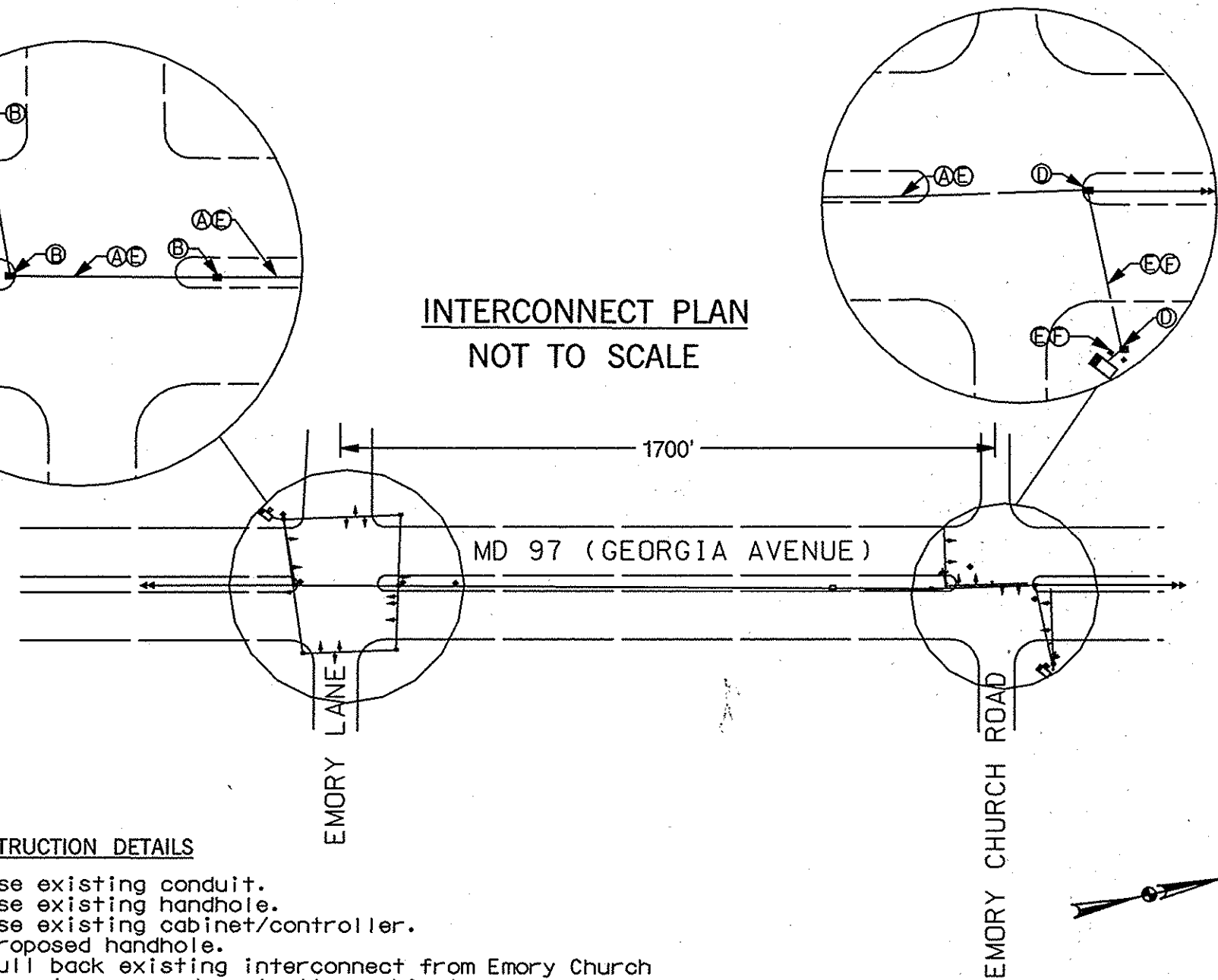
QUANTITY	UNITS	DESCRIPTION
1	LS	MAINTENANCE OF TRAFFIC
4	CY	TEST PIT EXCAVATION
25	LF	5 IN. WIDE HAPPTM - DOUBLE YELLOW FOR LANE LINE
60	LF	24 IN. WIDE HAPPTM - WHITE FOR STOP LINE
12	CY	CONCRETE FOUNDATION FOR TRAFFIC SIGNAL EQUIPMENT
10	LF	2 IN. POLYVINYL CHLORIDE (SCHEDULE 80) ELECTRICAL CONDUIT - TRENCHED
330	LF	ELECTRICAL CABLE, 2-CONDUCTOR TRAY CABLE (NO. 12 A.W.G.)
200	LF	BARE COPPER STRANDED GROUND WIRE (NO. 6 A.W.G.)
220	LF	4 IN. POLYVINYL CHLORIDE (SCHEDULE 80) ELECTRICAL CONDUIT - BORED
15	LF	3 IN. POLYVINYL CHLORIDE (SCHEDULE 80) ELECTRICAL CONDUIT - TRENCHED
26	LF	4 IN. POLYVINYL CHLORIDE (SCHEDULE 80) ELECTRICAL CONDUIT - TRENCHED
30	LF	1-CONDUCTOR ELECTRICAL SERVICE CABLE (NO. 4 A.W.G.)
3	EA	ELECTRICAL HANDHOLE
27	SF	36 IN. X 36 IN. R1-1 STOP SIGN WITH GROUND MOUNTING HARDWARE
5	SF	24 IN. X 30 IN. R4-9 KEEP LEFT SIGN WITH GROUND MOUNTING HARDWARE
5	SF	24 IN. X 30 IN. R4-7 KEEP RIGHT SIGN WITH GROUND MOUNTING HARDWARE
20	SF	16 IN. X VAR. D-3(1) (DUAL FACED) SIGN WITH MAST ARM MOUNTING HARDWARE
26	SF	40 IN. X 78 IN. M95-1 (MOD) ROUTE ASSEMBLY SIGNS WITH POLE MOUNTING HARDWARE
1	EA	250W-HPS LUMINAIRE WITH 20 FT. LIGHTING ARM
5	EA	GROUND ROD 3/4 IN. DIAMETER X 10 FT. LENGTH
80	LF	ELECTRICAL CABLE, 5-CONDUCTOR TRAY CABLE (NO. 14 A.W.G.)
905	LF	ELECTRICAL CABLE, 7-CONDUCTOR TRAY CABLE (NO. 14 A.W.G.)
1	EA	27 FT. STEEL MAST ARM POLE WITH TWIN 50 FT. MAST ARM AND 70 FT. MAST ARM
1	EA	27 FT. STEEL MAST ARM POLE WITH 70 FT. MAST ARM
1	EA	STANDARD SHA TRAFFIC SIGNAL CONTROLLER ASC II AND BASE MOUNTED CABINET (NEMA SIZE "6")
4	EA	200A METERED SERVICE PEDESTAL
12	EA	12 IN. VEHICULAR SIGNAL HEAD RED LED SECTION, BLACK FACE.
4	EA	12 IN. VEHICULAR SIGNAL HEAD AMBER LED SECTION (HIGH INTENSITY DIALITE), BLACK FACE.
225	LF	ELECTRICAL CABLE, 1-CONDUCTOR NO. 250 KCMIL
2200	LF	INTERCONNECT CABLE, 50-PAIR (NO. 9 A.W.G.)
1	EA	CUT, CLEAN, AND CAP SIGN STRUCTURE
2000	LF	DISCONNECT, PULL-BACK AND REROUTE INTERCONNECT CABLE
50	LF	ELECTRICAL CABLE, 3 WIRE (NO. 4 A.W.G.)

WIRING DIAGRAM



- WIRING KEY**
- A, B, C, D } 7 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
  - E, F, G, H } 5 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
  - I } 2 CONDUCTOR TRAY CABLE FOR STREET LIGHTS (NO. 12 AWG)
  - J } 1 CONDUCTOR (NO. 6 AWG) STRANDED COPPER GROUND WIRE
  - K } 3 WIRE 1 CONDUCTOR (NO. 4 AWG) FOR ELECTRICAL SERVICE
  - + } GROUND ROD
  - PS } 3 WIRE NO. 250 KCMIL FOR ELECTRICAL SERVICE
  - Y } 50-PAIR INTERCONNECT CABLE (NO. 9 AWG) CONNECTED BY MONTGOMERY COUNTY DPW&T FORCES.
  - Z } AFTER PULLBACK (SEE INTERCONNECT PLAN) EXISTING INTERCONNECT CABLE (TO OLD BALTIMORE ROAD INTERSECTION NORTH OF EMORY CHURCH LANE)

INTERCONNECT PLAN  
NOT TO SCALE



CONSTRUCTION DETAILS

- A) Use existing conduit.
- B) Use existing handhole.
- C) Use existing cabinet/controller.
- D) Proposed handhole.
- E) Pull back existing interconnect from Emory Church Lane to proposed controller cabinet.
- F) Proposed Conduit.

<b>SHA</b> STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF TRAFFIC & SAFETY TRAFFIC ENGINEERING DESIGN DIVISION	
MD 97 (GEORGIA AVENUE) AND EMORY CHURCH ROAD	
<b>INTERSECTION CONTROL BEACON DESIGN</b>	
SCALE 1" = 20'	DATE 10/24/06 CONTRACT NO. BW938M82
DESIGNED BY GDG	COUNTY MONTGOMERY
DRAWN BY ECR	LOGMILE 15009710.30
CHECKED BY KWE	T.I.M.S. NO. H465
F.A.P. NO. N/A	TOD NO.
DRAWING NO. 4464G1	OF SHEET NO. 2 OF 2